

REMARKS

By the foregoing Amendment, Claim 22 is cancelled. Entry of the Amendment, and favorable consideration thereof, is earnestly requested. Claims 15-21 and 23-25 are currently pending.

Claim 22 is objected to under 37 CFR 1.75(c) as being in improper dependent form for failure to limit the subject matter of a previous claim. Claim 22 has been cancelled.

Claims 15-25 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over the claims of Tipler (U.S. Patent No. 6,645,773). A Terminal Disclaimer obviating these rejections is being filed herewith, the previously filed Terminal Disclaimer having contained a typographical error.

Claims 15, 16 and 22-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Leenders et al. (U.S. Patent No. 4,670,400) in view of Fowler et al. (U.S. Patent No. 3,753,369). Applicant respectfully asks the Examiner to reconsider this rejection in view of the following comments.

The present invention is directed to a method for determining temperature within a sealed container. As explained in the specification of the present application itself, several alternatives were considered by Applicant during development of the present invention. One of such considered alternatives was to make use of the temperature dependence of vapor pressures alone in order to determine the effective temperature within a sealed vial. See paragraph [0031] of the present application. However, Applicant recognized that there were problems with this approach, and eventually developed the present invention, which is based upon temperature dependence of solubility and vapor pressure. See paragraphs [0032] and [0033] of the present application.

This dependence upon solubility and vapor pressure, rather than upon vapor pressure alone, is embodied in Claim 15 by the requirement that the solvent be mixed with a compound to create a saturated solution within the sealed container, and that vapor of the saturated solution be allowed to equilibrate within the sealed container. Applicant respectfully submits that these highlighted elements are not disclosed, taught or suggested in any way by the cited prior art, either when taken individually or when taken in combination as suggested by the Examiner.

Leenders et al. is directed to a method of determining monomer conversion in the liquid phase by analyzing vapor phase above a polymerization mixture in a reactor. While the temperature within the reactor, and in particular within the headspace of the reactor, is determined and used in practicing the method, the temperature is measured using a probe, rather than being calculated by chromatographic readings. The Examiner expressly recognizes such in the outstanding Office Action, but cites Fowler et al. as disclosing the elements missing from Leenders et al.

Fowler et al. discloses a method for the direct recording of the relationship between a measured property (e.g., viscosity or vapor pressure) and the reciprocal of absolute temperature by means of resistance thermometry in cooperation with bridge circuits. Thus, Applicant acknowledges that Fowler et al. does disclose that there does exist a relationship between vapor pressure and temperature. However, as discussed above, and in the specification of the present application at paragraphs [0031] – [0033], the present invention relies upon more than, and Claim 15 requires more than, a relationship between vapor pressure and temperature (which relationship was rejected by Applicant as a viable alternative in developing the present invention). Rather, as discussed above, the present invention is based upon temperature dependence of solubility and vapor pressure, and Claim 15 requires, inter alia, that the solvent be mixed with a compound to

create a saturated solution within the sealed container, and that vapor of the saturated solution be allowed to equilibrate within the sealed container. These limitations are not disclosed, taught nor suggested by Fowler et al.

Moreover, Applicant respectfully submits that it would not have been obvious to have modified the hypothetical system resulting from the combination of Leenders et al. and Fowler et al. to have arrived at the present invention, as claimed. More specifically, if Leenders et al. and Fowler et al. were combined as suggested by the Examiner, there would be two types of components within the reactor: (1) the monomer(s) being converted into the polymer, and (2) in the case of a homopolymer, a reference compound. However, neither of these components would be present in a quantity to form a saturated solution, the vapor of which could be sampled in order to calculate a temperature.

With respect to the monomer(s), the amount of these components is continually changing, and in fact, the crux of the invention of Leenders et al. is to measure the amounts of these components as they change over time. Thus, attempting to maintain a saturated solution of the monomer(s), such that the method of the present invention could be used to calculate temperature, would render the teachings of Leenders et al. essentially useless.

With respect to the reference compound, Leenders et al. itself strongly teaches against providing a significant enough amount thereof to create even close to a saturated solution. More specifically, Leenders et al. explicitly states: “Since it is desirable to use a minimum amount of the reference compound to avoid any effect on the polymerization, the monomer concentration is chosen that is sufficient to give an accurately measurable peak on the chromatogram.” See column 2, lines 59-64. Certainly, an amount necessary to create a saturated solution cannot be considered to be “a minimum amount.” Thus, one skilled in the art is clearly taught against creating a saturated solution of the reference compound.

In view of the above, Applicant respectfully submits that one skilled in the art would not have risked rendering the teachings of Leenders et al. essentially useless and/or interfering with the polymerization process, particularly in view of the fact that there is no reason to believe that the temperature measurement technique already employed by Leenders et al. (i.e., the use of a temperature probe) is in any way inadequate.

For the foregoing reasons, Applicant respectfully submits that all pending claims, namely Claims 15-21 and 23-25, are in condition for allowance, and early notification of such is earnestly requested.

Respectfully submitted,

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/Wesley W. Whitmyer, Jr./
Wesley W. Whitmyer, Jr., Reg. No. 33,558
Todd M. Oberdick, Reg. No. 44,268
ST. ONGE STEWARD JOHNSTON & REENS LLC
986 Bedford Street
Stamford, Connecticut 06905-5619
(203) 324-6155
Attorneys for Applicant